

Econ: 102

Student Name _____

23 April, 2008

Section # _____

TA name _____

Student ID # _____

THIRD MIDTERM EXAMINATION VERSION 1

DO NOT OPEN THE TEST UNTIL THE INSTRUCTOR TELLS YOU TO DO SO. READ THESE INSTRUCTIONS FIRST.

You have **40 minutes** to complete the exam. There is **one and only one best answer** to each question. All questions are worth the same number of points.

You will have **5 points taken off for not providing/coding your name, student ID number, discussion section you've been attending or test version number correctly on your scantron.**

HOW TO FILL IN THE SCANTRON SHEET CORRECTLY:

1. Answer all questions on the scantron sheet with a #2 pencil.
2. Print your last name, first name, middle initial and student ID number in the spaces marked "Last Name," "First Name" and "MI". Fill in the corresponding bubbles.
3. Write the number of the discussion section you've been attending under "Special Codes" spaces ABC, and fill in the bubbles. You can find the discussion numbers below on this page.
4. Write the version number of your exam booklet under "Special Codes" space D, and fill in the bubble. The version number is on the top of this page.

OTHER IMPORTANT REGULATIONS:

1. If there is an **error on the exam or you do not understand something**, make a note on your exam booklet and the issue will be addressed AFTER the exam is complete. No questions regarding the exam can be addressed while the exam is being administered.
2. ***If you finish early***, please ***remain seated*** and raise your hand. A proctor will come to collect your exam. ***If you finish in the last five minutes***, please seat until the end of the exam in consideration of your classmates.
3. **No cell phones**
4. **Only simple calculators** allowed

DISCUSSION SECTION NUMBERS:

350 3:30 Wed Chao He	354 8:50 Fri Jacob Miller	358 12:05 Fri Jacob Miller
351 3:30 Wed Jacob Miller	355 8:50 Fri Chao He	359 12:05 Fri Chao He
352 8:50 Thur Jiao Shi	356 9:55 Fri Chao He	360 1:20 Fri Chao He
353 8:50 Thur Jacob Miller	357 9:55 Thur Jacob Miller	361 2:25 Thur Jiao Shi

1. Suppose the Federal Reserve wants to decrease the money supply by \$100,000. If the required reserve ratio is 0.1, which of the following actions will achieve the Fed's goal? (Assume no cash is held by the public and banks do not hold excess reserves.)
 - a. The Fed must purchase \$100,000 in bonds.
 - b. The Fed must sell \$100,000 in bonds.
 - c. The Fed must purchase \$10,000 in bonds.
 - d. The Fed must sell \$10,000 in bonds.

2. The effective demand deposit multiplier is likely to be smaller (pick the best answer)
 - a. during periods of economic expansion
 - b. in periods of high economic growth
 - c. when banks loan out all excess reserves
 - d. when people hold less money in deposits and more in cash
 - e. when the fed lowers the required reserve ratio

3. The deposit-creation process can continue as long as
 - a. banks have required reserves
 - b. banks have excess reserves
 - c. the Fed sells bonds
 - d. banks sell bonds to the public
 - e. the required reserve ratio does not change

4. If the required reserve ratio is 0.25 and the First National Bank holds \$10 million in demand deposits and \$2.5 million in reserves, how much more money is the bank capable of creating?
- a. \$0
 - b. \$0.625 million
 - c. \$1.875 million
 - d. \$2.5 million
 - e. \$10 million
5. If this balance sheet depicts the only bank in the economy, and no one holds cash in hand, then how large is M1 and M0? (the RRR is 0.20)

<u>Assets</u>		<u>Liabilities and Net Worth</u>	
Property	\$10 million	Demand deposits	\$60 million
Government bonds	\$20 million		
Vault cash	\$25 million		
Loans	<u>\$30 million</u>	Net worth	\$15 million
		<hr/>	
TOTAL ASSETS	\$75 million	TOTAL LIABILITIES PLUS NET WORTH	\$75 million

- a. M1 is \$45million, and M0 is 10
- b. M1 is \$25million, and M0 is 13
- c. M1 is \$25million, and M0 is 5
- d. M1 is \$60 million, and M0 is 25
- e. M1 is \$60 million, and M0 is 12

6. Which of the following is *not* included in the M1 money stock?

- a. savings-type accounts
- b. demand deposits
- c. checking account deposits
- d. travelers' checks
- e. cash in the hands of the public

7. Given the following information, what would be the values of M1 and M2?

Small time deposits	\$650 billion
Checking deposits	\$300 billion
Savings-type accounts	\$750 billion
Money market mutual funds	\$600 billion
Travelers' checks	\$ 25 billion
Large time deposits	\$600 billion
Cash in hand	\$100 billion

- a. M1: \$400 billion; M2: \$2,450 billion
- b. M1: \$100 billion; M2: \$1,075 billion
- c. M1: \$425 billion; M2: \$2,425 billion
- d. M1: \$425 billion; M2: \$3,025 billion
- e. M1: \$1,175 billion; M2: \$1,850 billion

8. Which of the following is the most liquid category of assets?
- a. large time deposits
 - b. money market mutual fund balances
 - c. small time deposits
 - d. saving-type accounts
 - e. demand deposits
9. A \$100 bill held by Jiao in her wallet is part of
- a. M0 but not M1 and M2
 - b. M1 but not M2
 - c. M0, M1 and M2
 - d. Only M1
 - e. Neither of them, because this is cash in the hands of the public
10. Suppose a bond promises to pay its holder \$100 this year (right now), \$100 in one year from now and \$100 in two years from now. Assuming market nominal interest rate is 10% (this year as well as in the future years), the market price of this bond must be
- a. 278.33
 - b. 270.12
 - c. 273.55
 - d. 275.45
 - e. 248.69

11. The money supply curve is vertical because
- real income does not influence the quantity of money supplied
 - the price level does not influence the level of spending
 - only the interest rate influences the quantity of money supplied
 - the Federal Reserve sets the money supply
 - nominal income does not influence the quantity of money supplied
12. Which of the following is correct?
- The opportunity cost of holding money is the trouble of having to get money out of the bank
 - The opportunity cost of holding money is zero, because opportunity costs only apply to real assets, goods and services
 - An individual's quantity of money demanded refers to the amount of her wealth that an individual chooses to hold in the form of money
 - An individual's quantity of money demanded refers to the amount of money an individual needs to maintain her desired standard of living
 - The amount of wealth that an individual wishes to hold as money is determined only by real income and the interest rate

Answer the following two questions using the information below.

The economy of *Tropica* is characterized by the following data:

- The production function is $Y = 2\sqrt{KL}$ where K is capital input, L is labor input, and Y is output (real GDP)
- Labor supply is constant and equal to $L=9$.
- Government spending is $G=4$ (assume it is not invested in capital), and net taxes are $T=2$
- Saving rate is constant and equal to 20% of disposable income $Y-T$
- Depreciation of capital is 10%
- In 2046, the capital stock is 16

13. If the government doesn't change its spending and taxation, what is the capital stock in 2047? (Use the Classical Model)
- a. 19.2
 - b. 17.6
 - c. 17.2
 - d. 16.8
14. In addition, assuming G is not invested in capital, we can say that:
- a. In the year 2046, if the government reduces its spending and taxation by the same amount, the interest rate will increase
 - b. In the year 2046, if the government increases its spending and taxation by the same amount, the investment will increase
 - c. In the year 2046, if the government increases its spending and keeps its taxation constant, the investment will decrease
 - d. The long run equilibrium capital stock is 25

15. Suppose in the long-run equilibrium of the Classical Model we have
- Output = 100
 - Equilibrium nominal interest rate implied by loanable fund market is 4% (= real interest rate pinned down in LF market + expected inflation)
 - Money demand is $M^d = 4P + Y - 100i$
 - Money supply is $M^s = 120$
- a. The price level is 3
- b. The price level is 6
- c. The price level is 8
- d. The price level is 10
16. Suppose you have the following information on the economy of *Classica*. Households save 10% of their income, output is 100, net taxes and government expenditures are both 0, and investment is the following function of the interest rate $I = 30 - 100i$. Suppose the interest rate $i = 20\%$ (0.2), then according to the Classical Model, it is true that:
- a. The loanable funds market and goods market are both in equilibrium
- b. Only the loanable funds market is in equilibrium; the goods market is not
- c. Only the goods market is in equilibrium; the loanable funds market is not
- d. Neither the goods market nor loanable funds market is in equilibrium

17. Following Fed's action the price of bonds falls by 10%. It is very likely that the Fed must have
- a. increased the monetary base
 - b. purchased bonds in the open market
 - c. targeted a lower interest rate than before
 - d. increased the required reserve ratio
18. In the Classical Model with money, if people suddenly decide to hold less money than previously, then to restore long-run equilibrium
- a. The price level must increase
 - b. The price level must fall
 - c. Output and the price level both must fall
 - d. Output increases and so price level must also increase
19. Monetary policy works as follows: when the Fed purchases government bonds
- a. The money supply falls, the price of bonds rises, the interest rate falls
 - b. The money supply falls, the price of bonds falls, the interest rate rises
 - c. The money supply increases, the price of bonds falls, the interest rate falls
 - d. The money supply increases, the price of bonds rises, the interest rate falls

20. The following statement is true about the Classical Model
- a. Fiscal policy is neutral and has no effect on output, today and in the future
 - b. Fiscal policy has no effect on output today, but may affect capital accumulation in the future
 - c. Monetary policy has an effect on output, but no effect on prices
 - d. Monetary policy has an effect on both output and prices
21. Suppose in the Classical Model the labor market can be in disequilibrium (does not have to clear). Assume that savings are 10% of income, there is no government ($T=0$, $G=0$), and investment as a function of interest rate is given by $I = 30 - 100i$. Then, if the loanable funds market is in equilibrium at the interest rate equal to 10%, and the goods market is in equilibrium, we can infer that output Y must be:
- a. 100
 - b. 140
 - c. 200
 - d. 300

22. When in the Classical Model government expenditures G (assume here G is *not* spent on capital) and net taxes T both increase by the same amount, then
- a. Output and capital are unchanged in the current period, but in the future both decline
 - b. Output and capital fall in the current period, but then again increase over time
 - c. Output and capital fall right away and in the future
 - d. Output and capital are unaffected by this policy
23. Use the Classical Model and suppose you know the following about the economy of *Classica*: $Y=10$, saving rate $s=50\%$, government deficit=1, $T=1$, the economy has 10 units of capital, and depreciation of capital is 35%. It is then true that in the current period investment in new capital is
- a. 3.5, and the economy is *not* in the long-run equilibrium
 - b. 3.5, and the economy is in the long-run equilibrium
 - c. 4, and the economy is *not* in the long-run equilibrium
 - d. 4, and the economy is in the long-run equilibrium